

ABSTRACT

The present invention provides for the retrofitting diesel truck engines with a system to reduce NOx emissions. The SCR system of the present invention, including a
5 controller, a reagent tank, and an injection system, is installed on a vehicle. A NOx detector is temporarily installed as part of the system. The vehicle is then operated to collect engine parameters including fuel injection timing, RPM, load, exhaust heat, exhaust flow rate, and the like,
10 together with measurements of the NOx emissions under various operating conditions. Based on the recorded data at various operating conditions, a reagent injection strategy is developed and installed at the reagent injection controller. During vehicle operation, the injector injects reagent into
15 the exhaust system based on control signals from the reagent injection controller in accordance with the injection strategy in order to reduce NOx emissions at the various operating conditions.

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